WHAT IS CLAIMED IS:

1. A brightness enhancement article for transmitting incoming light and preferentially redirecting the light in a viewing direction, comprising a prism surface for receiving the light comprising a series of spaced-apart prism elements having a substantially trapezoidal cross-section, each said trapezoidal prism element comprising:

(a) a face plane disposed toward the incoming light;

(b) a base plane larger than the face plane, disposed away from the incoming light, connecting the base of the prism elements; and

(c) first and second non-parallel planes extending back from said face plane to said base plane, each forming an angle (β), within the prism element between the non-parallel plane and said face plane, of greater than 90 and less than 120 degrees.

2. An article of claim 1 wherein the prism elements are formed by elongated V-shaped grooves.

3. An article according to claim 1 comprising a transparent polymer derived from an ethylene or acrylic monomer.

4. An article according to claim 1 wherein said prism elements are spaced apart at substantially equal intervals.

5. An article according to claim 1 wherein at least one of said first and second mutually non-parallel planes has a reflective surface.

6. An article according to claim 5 wherein said reflective surface comprises at least one optical coating.

7. An article according to claim 5 wherein said reflective surface comprises a filling within the space between the prism elements.

8. An article according to claim 1 wherein said incoming light is Lambertian.

9. An article according to claim 1 wherein the materials forming prism structures are polymeric.

10. An article according to claim 1 wherein the pitch (P) or distance between identical points in adjacent prisms is from 10 to 200 microns.

11. An article according to claim 1 wherein the pitch (P) is from 10 to 100 microns.

12. An article according to claim 1 wherein the ratio of the height (H) or orthogonal distance between the face plane and the base plane to the pitch (P) is from 0.5 to 5.

13. An article according to claim 1 wherein the ratio of the height (H) or orthogonal distance between the face plane and the base plane to the pitch (P) is from 1 to 2.

14. An article according to claim 5 wherein the material forming the prism elements is air.

15. An article according to claim 1 further comprising a second prismatic surface on the viewing side of the article wherein the prisms are arranged in a first direction orthogonal to the prisms on the light receiving surface.

16. An article according to claim 15 wherein said viewing side prismatic surface comprises a linear array of substantially triangular prism-shaped lens elements

having longitudinal axes in a second direction along said second prismatic surface, said second direction orthogonal to said first direction.

17. An article according to claim 1 wherein the prismatic surface comprises two series of V-shaped grooves in directions orthogonal to each other.

18. An article according to claim 1 wherein the prism elements are truncated cone shaped.

19. An article according to claim 1 wherein the prism elements are truncated pyramid shaped.

20. A display device comprising the article of claim 1 and a light modulator in the path of said enhanced illumination for forming an image for display.

21. A display device according to claim 20 wherein said light modulator is an LCD spatial light modulator.

22. A liquid crystal display device comprising an article of claim 1.

23. A liquid crystal display device comprising two articles of claim 1 each having a prismatic surface on their respective light receiving surfaces.

24. A liquid crystal display device according to claim 23 wherein the two prismatic surfaces are oriented orthogonal to each other.

25. A brightness enhancement article for transmitting incoming light and preferentially redirecting the light in a viewing direction, comprising a prism surface for receiving the light comprising a series of spaced-apart prism elements having a

substantially trapezoidal cross-section, each said trapezoidal prism element comprising:

(a) a face plane disposed toward the incoming light;

(b) a base plane larger than the face plane, disposed away from the incoming light, connecting the base of the prism elements; and

(c) first and second non-parallel planes extending back from said face plane to said base plane, each forming an angle (β)= 180°-α,

wherein the ratio of height (H) or orthogonal distance between the face plane and the base plane to the pitch (P) or distance between identical points in adjacent prism for said article, provides a cutoff angle for output light as the largest of the absolute values $\theta c1$, $\theta c2$, and $\theta c3$ defined as follows:

(i) $\theta c1 = \sin^{-1}\left(n \sin\left(\tan^{-1}\left(\frac{P}{H} - \frac{1}{\tan(\alpha)} \right) \right) \right)$

(ii) $\theta c2 = \sin^{-1}(n \sin(\sin^{-1}(\frac{1}{n}) + 2\alpha - 180^0))$

(iii) $\theta c3 = \sin^{-1}\left(n \sin\left(\sin^{-1}\left(\frac{\sin\theta c1}{n} \right) + 2\alpha - 180^0 \right) \right)$

wherein $\alpha = 180^0$ - β degrees and wherein n is the index of refraction of the prism element material.

26. A method for enhancing brightness of incoming light and preferentially redirecting the light in a viewing direction, comprising directing the light through a prism surface for receiving the light comprising a series of spaced-apart prism elements having a substantially trapezoidal cross-section, each said trapezoidal prism element comprising:

(a) a face plane disposed toward the incoming light;

(b) a base plane larger than the face plane, disposed away from the incoming light, connecting the base of the prism elements; and

(c) first and second non-parallel planes extending back from said face plane to said base plane, each forming an angle (β), within the prism between the non-parallel plane and said face plane, of greater than 90 and less than 120 degrees.

27. A method for enhancing brightness of incoming light and preferentially redirecting the light in a viewing direction, comprising directing the light through a prism surface for receiving the light comprising a series of spaced-apart prism elements having a substantially trapezoidal cross-section, each said trapezoidal prism element comprising:

(a) a face plane disposed toward the incoming light;

(b) a base plane larger than the face plane, disposed away from the incoming light, connecting the base of the prism elements; and

(c) first and second non-parallel planes extending back from said face plane to said base plane, each forming an angle (β)= 180°-α,

wherein the ratio of height (H) or orthogonal distance between the face plane and the base plane to the pitch (P) or distance between identical points in adjacent prism for said article, provides a cutoff angle for output light as the largest of the absolute values θc1, θc2, and θc3 defined as follows:

(i) $\theta c1 = \sin^{-1}\left(n \sin\left(\tan^{-1}\left(\frac{P}{H} - \frac{1}{\tan(\alpha)} \right) \right) \right)$

(ii) $\theta c2 = \sin^{-1}(n \sin(\sin^{-1}(\frac{1}{n}) + 2\alpha - 180^0))$

(iii) $\theta c3 = \sin^{-1}\left(n \sin\left(\sin^{-1}\left(\frac{\sin\theta c1}{n} \right) + 2\alpha - 180^0 \right) \right)$

wherein $\alpha = 180^0$ - β degrees and wherein n is the index of refraction of the prism element material.